

with pharmacist-managed ESA clinics (n=314) and at six sites with usual care only (n=167); outpatients were followed for 6 months in 2009. We took a VA perspective with projections over a five-year time horizon; costs and effectiveness values were discounted at 3%/yr. Strategy-specific likelihoods of target range hemoglobin values (10-12 g/dl) were based on study results. Utilities for ND-CKD and ESA-related adverse events and their likelihood were obtained from the literature. ESA costs were based on average monthly epoetin and darbepoetin doses per patient during the study and VA ESA cost data. **RESULTS:** In the base case analysis, cost and effectiveness were \$12,500 and 2.096 quality-adjusted life-years (QALYs) in the pharmacist-managed ESA clinics and \$15,500 and 2.093 QALYs in usual care; ESA clinics dominated usual care. In one-way sensitivity analyses, ESA clinics no longer dominated if their patients' probability of being in the target range fell to 0.54 (base case 0.71) or if the mean cost/month of epoetin or darbepoetin in ESA clinics increased to approximately \$360 (base case \$211) or \$460 (base case \$250), respectively. When all parameters were varied simultaneously in a probabilistic sensitivity analysis, ESA clinics were favored  $\geq 80\%$  of the time regardless of willingness-to-pay threshold. **CONCLUSIONS:** Pharmacist-managed ESA clinics were less costly and more effective than usual care in patients receiving ESAs for anemia and ND-CKD. Results were robust to variation and support the use of pharmacist-managed ESA clinics.

#### PUK20

##### COST-UTILITY ASSESSMENT OF SIROLIMUS VERSUS TACROLIMUS FOR PRIMARY PREVENTION OF GRAFT REJECTION IN RENAL TRANSPLANT RECIPIENTS IN MEXICO

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**OBJECTIVES:** Immunosuppressive agents have affected the incidence of acute rejection and early graft survival. The purpose of this study was to evaluate the cost-utility of sirolimus versus tacrolimus for primary prevention of graft rejection in renal transplant recipients using the Mexican Institute of Social Security (IMSS) perspective. **METHODS:** A Markov model was developed to estimate the cost-effectiveness of sirolimus versus tacrolimus to prevent graft rejection in adult patients with end-stage renal disease (ESRD). The model estimates total costs and QALYs per patient in each prophylaxis group. To extrapolate trial results to lifetime horizon, the model was extended through one-year Markov cycles. The probabilities of experiencing a graft loss, dialysis, and death were estimated from trial published data; long-term mortality, acquisition costs, and direct treatment costs were retrieved using IMSS published sources. Cost utility assessment was expressed in terms of cost per QALY gained. All costs are presented in 2011 US dollars. Probabilistic sensitivity analyses were carried out to test the robustness of the results. **RESULTS:** In comparison to tacrolimus, sirolimus improved life expectancy, number of QALYs gained, and reduced incidence of complications. The lifetime overall costs of prevent graft rejection in adult patients with ESRD resulted in a cost per QALY gained of <\$5846. Over the lifetime period, sirolimus was estimated to gain 8.18 QALYs per patient compared to 7.33 QALYs for tacrolimus. Sirolimus is estimated to be cost-saving compared to tacrolimus. Notably, results suggest that sirolimus has a 78% probability of being dominant over tacrolimus strategy, with 100% of probability in showing an incremental cost-effectiveness ratio at or below US\$13,000 (1 GDP per capita in Mexico) per QALY gained. **CONCLUSIONS:** This analysis suggests that at IMSS, sirolimus in comparison to tacrolimus for prevention of graft rejection in adults patient with ESRD is likely to be cost saving alternative.

#### PUK21

##### COST-EFFECTIVENESS ANALYSIS OF SOLIFENACIN SUCCINATE VERSUS TROSPRIUM CHLORIDE IN THE TREATMENT OF PATIENTS WITH OVERACTIVE BLADDER IN GERMANY

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**OBJECTIVES:** To carry out a cost-utility analysis comparing initial treatment of patients with overactive bladder (OAB) with solifenacin 5 mg/day versus either trospium 20mg twice a day or trospium 60 mg/day from the perspective of the German National Health Service. **METHODS:** A decision analytic model with a three-month cycle was developed to follow a cohort of OAB patients treated with either solifenacin or trospium during a one-year period. Costs and utilities were accumulated as patients transitioned through the four cycles in the model. Some of the solifenacin patients were titrated from 5mg to 10mg/day at 3 months. Utility values were obtained from the published literature and pad use was based on a US resource utilisation study. Adherence rates for individual treatments were derived from a UK GP database review. The change in the mean number of urgency urinary incontinence episodes/day from after 12 weeks was the main outcome measure. Baseline effectiveness values for solifenacin and trospium were calculated using the Poisson distribution. Patients who failed second-line therapy were referred for a specialist visit. Results were expressed in terms of incremental cost-utility ratios. **RESULTS:** Total annual costs for solifenacin, trospium 20mg and trospium 60mg were 982.28 €, 863.23 € and 880.37 € respectively. Drug use represented 47%, 32% and 33% of total costs and pad use varied between 42% and 55%. Differences between cumulative utilities were small but favoured solifenacin (0.6887 vs. 0.6828 to 0.6830). The baseline incremental cost-effectiveness ratio ranged from 17,104 € to 20,533 per QALY. **CONCLUSIONS:** Solifenacin would appear to be cost-effective with an incremental cost-utility of no more than 21,000 €/QALY. Small differences in utility between the alternatives, however, means that the results are sensitive to

adjustments in the values of the assigned utilities, effectiveness and discontinuation rates.

#### URINARY/KIDNEY DISORDERS – Patient-Reported Outcomes & Patient Preference Studies

#### PUK22

##### COMPARISON OF UTILITY SCORE AND QUALITY OF LIFE SCORE IN THAI PATIENT BETWEEN TWICE AND THRICE-WEEKLY HEMODIALYSIS

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**OBJECTIVES:** To compare the utility scores and quality of life scores between patients who have twice and thrice-weekly hemodialysis. **METHODS:** This was a cross-sectional analytical study in 5 hemodialysis sites of Nephrology Unit at Siriraj Hospital (the largest university hospital in Thailand), Face-to-face interview using EuroQol questionnaire (EQ-5D), VAS, and KDQOL-36 (consists of 3 kidney disease subscales and SF-12) was conducted between April 2011 and June 2011, one hundred and fifty-three hemodialysis patients were recruited from the chronic hemodialysis clinic unit. This study compared the difference of hemodialysis times in weekly to utility scores and quality of life scores of patients by using Independent Student's t-test. **RESULTS:** SF-6D (derived from SF12), EQ-5D (UK and Thai preference weight), and VAS between the patients who received twice and thrice-weekly hemodialysis were not significantly different (p>0.05). This is true as well for Symptom/ problem list, Effects of kidney disease, and burden of Kidney Disease scores. For SF-12, all of physical and mental domains were not significantly different as well as all of utility and kidney disease specific scores were not significantly associated with hemodialysis times in weekly intervals (all, p<0.05). **CONCLUSIONS:** These findings implied that thrice-weekly could not reflect the better quality of life than twice-weekly hemodialysis. There was no significant difference quality of life from the Symptom/ problem list, Effects of kidney disease, and burden of Kidney Disease between twice and thrice-weekly hemodialysis as well as the utility scores from SF-6D, EQ-5D and VAS. Further large cohort study of utility scores or cost effectiveness analysis between the difference of dialysis frequency at weekly intervals, however, should be conducted.

#### PUK23

##### UNDERSTANDING THE EFFECTS ON HR-QOL OF TREATMENT FOR OVERACTIVE BLADDER: A DETAILED ANALYSIS OF EQ-5D CLINICAL TRIAL DATA FOR MIRABEGRON

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**OBJECTIVES:** Analysis of EQ-5D data often focuses on changes in utility, ignoring valuable information from other parts of the instrument. Our objective was to explore how the utility index, EQ-5D profile, and EQ-VAS captured change in clinical trials of Mirabegron, a new treatment for overactive bladder (OAB). **METHODS:** Data were pooled from three phase III clinical trials that investigated the efficacy and safety of mirabegron versus placebo. Tolterodine ER 4mg was included as an active control in one study: 1) Europe and Australia (placebo, mirabegron 50mg and 100mg, and tolterodine 4mg ER); 2) USA and Canada (Placebo, Mirabegron 50mg and 100mg); and 3) USA, Canada and Europe (Placebo, and Mirabegron 25mg and 50mg. Data were collected at baseline, week 4, 8 and 12. Analyses were performed on full analysis and per protocol data sets using UK utilities. Analysis controlled for relevant patient characteristics. Analysis of Covariance identified changes from baseline at each time point in utilities and EQ-VAS, while Areas Under the Curve (AUC) were estimated to summarise intertemporal differences in effect. **RESULTS:** In per protocol analyses, mirabegron 50mg was superior to tolterodine 4mg in changes from baseline utilities after 12 weeks (p<0.05); similarly, AUC results showed mirabegron 50mg to be superior to tolterodine (p<0.05) and to placebo (p<0.05). In both cases, the benefit is already apparent at 4 weeks (p<0.05). EQ-VAS more consistently indicated superior outcomes: all three mirabegron doses showed statistically significant greater effectiveness compared to tolterodine at 12 weeks. Individual EQ-5D dimensions and the overall profile showed no significant differences between study arms. **CONCLUSIONS:** Despite slight contrasts in results between the EQ-5D derived utilities and EQ-VAS, mirabegron showed quicker and superior improvement in HR-QoL compared to tolterodine 4mg ER. Research is required to address future utility measurements, especially in relation to EQ-5D dimensions in OAB patients.

#### PUK24

##### EXAMINING THE ROLE OF CAREGIVER TOWARDS BLOOD TRANSFUSION DECISIONS AMONG INDIVIDUALS WITH CHRONIC KIDNEY DISEASE

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**OBJECTIVES:** Examine role of caregiver in supporting treatment decisions towards blood transfusions among individuals with chronic kidney disease (CKD) currently not on dialysis. **METHODS:** An online survey was conducted in 1Q2011. All respondents were  $\geq 18$  years and diagnosed with Cancer by a physician. Participants were asked about blood transfusion history, presence of anemia, types and roles of caregivers in assisting with management of their CKD and making health and treatment decisions towards blood transfusion. **RESULTS:** Of 416 participants, 59% (n=246) were female; 40% (n=165) were >65 years. 35% (n=144) had stage 4 and 58% (n=240) stage 3 CKD. 54% (n=226) were anemic. 43% (n=179) had received blood transfusion, whereas, 57% (n=237) had no transfusions. 53% (n=220) reported that